REMARKS

With this amendment, Applicant has amended claims 1-6 and 9-12 and has added new claims 13-24. Accordingly, claims 1-24 are now presented for consideration in view of the following remarks. Support for new claims 13-24 can be found, for example, at paragraphs 72-74 and Figs. 5 and 11 of the present application.

The present invention as claimed relates to a stored program, method, system and device that allows a user to accurately control the forces that are applied to a object displayed on a display screen, for example to allow the controlling of the molding and shaping of a virtual piece of clay displayed on a computer screen. The claimed invention employs a pressure-sensitive, push-button switch, alone or in combination with an operating lever having varying degrees of inclination, used to impart force to a displayed object from a force applying object, such as a hand or pair of hands, also displayed on the display. In claims 1-12, the magnitude of force applied by the operator to the pressure-sensitive switch, such as a push button switch 51d on controller 16 of Figure 1, is used to represent force to render the reaction of the displayed object (such as the clay CL) that is subject to the applied force. Likewise, as specified in claims 13-24, the degree of inclination imparted to the operating lever by an operator, such as the degree of deflection of lever 202 of Figure 2, can be used along with the magnitude of force applied to the pressure-sensitive switch to represent the force to be applied to the object.

The reaction by the displayed object thus varies in accordance with the force representing the force applied by the user to the push-button switch alone or in addition to the degree of inclination applied to the operating lever. This reaction allows the operator or player to press the push-button

switch and/or move the operating lever with a feeling of reality as if he or she actually wedges and changes the shape of a piece of clay, such that delicate changes to the shape of an object such as a virtual piece of clay can be achieved.

In the Office Action, the Examiner has rejected claims 1, 2, 6, 7, 11 and 12 under 35 U.S.C. § 102(b) as anticipated by Terajima et al., Japanese Unexamined Patent Application Publication 7-302159 ("Terajima"). The Examiner has also rejected claims 3-5 and 8-10 under 35 U.S.C. § 103(a) as being unpatentable over Terajima in view of Koshiba et al., U.S. Patent No. 6,040,840 ("Koshiba").

It is respectfully submitted that Terajima fails to disclose each and every claim element of any one of the claims. Namely, Terajima discloses the use of a pressure sensitive switch that can be used to control a character, for instance in a gaming environment, based on more than just the magnitude of the pressure applied to the switch. Thus, the movement of the character can also be controlled based on the speed (operational time) at which the button is pressed. (Terajima, ¶¶ 0005, 0007.) The gaming machine controls the distance and speed of the character based on the signals generated in response to the operational amount and operational time of the switch. (*Id.* ¶ 0017.) Using the integral of the change in the resistance sum Ro, the CPU can also calculate the magnitude of an impact when a character collides with another character. (*Id.* ¶ 0045.)

In Terajima, the operational amount and operation time information can be used for controlling characters, such as to adjust the strength of an attack by a character in a martial arts game, or the speed and strength of a throw or a kick of a character in a sports game. (*Id.* ¶ 0091.) Terajima, however, does not disclose or suggest determining a force to be applied to an object on a display screen according to the output value

representing a magnitude of force applied by the operator to a pressure sensitive switch alone or in combination with a degree of inclination imparted to the operating lever by the operator. Rather, the force on the button of Terajima determines the distance a character travels, not the force to be applied to the character itself.

Koshiba discloses an input unit used in simulating a change in the shape of an object using a clay model in virtual space. Koshiba can also feed back the counter-force or resistance force from the material to the finger tips in real-time so that the user can feel the hardness of the object, friction on the surface, etc. in a cybernetic space. (Koshiba, col. 6, lines 6-13.) Koshiba, however, does not disclose or suggest the use of a pressure sensitive switch alone or in conjunction with the degree of inclination imparted to the operating lever by the operator as representing a magnitude of a force applied to an object displayed on a screen from a force-applying object displayed on the screen.

Thus, the present invention provides a player with a virtual reality as if he or she actually imparts force on the object by pressing a real-world object such as a button to represent force to be used to change the shape of an object such as a piece of clay. Thus, delicate changes to the shape of the object displayed on the screen can be achieved.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he/she telephone Applicant's attorney at (908) 654-5000 in order to overcome any additional objections which he might have.
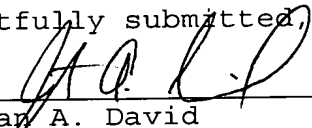
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If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: March 16, 2004   Respectfully submitted,

By_____
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